

**REMARKS**

The present claims relate to an alternately color-memorizing photochromic toy and a method for alternately expressing a color-memorizing photochromic function in a toy element.

***Response to claim rejections based on Gordon, Kamada and Tomonaga***

Claims 1, 3-7 and 15-16 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Gordon (U.S. Patent No. 2,460,221), Kamada (U.S. Patent No. 5,208,132) and Tomonaga (U.S. Publication No. 2002/0114956). In addition, claim 8 is rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Gordon, Kamada and Tomonaga.

Applicants respectfully submit that the presently claimed invention is not anticipated or rendered obvious by the combined teachings of Gordon, Kamada and Tomonaga. The position set forth in the Office Action does not appear to appreciate that the coloring state and decolorizing state of the presently claimed invention is distinct from the luminescent states present in the Gordon reference, namely the luminescence and non-luminescence states.

Gordon relates to an amusement device including a light-sensitive coating 13, which includes a light accumulating material, such as zinc sulphide. In accordance with the amusement device in Gordon, it is possible to provide all or part of a sheet with a luminescent property, i.e., a glowing property (see column 1, lines 9-12 of Gordon). The glowing portions of the sheet then fade away or may be “erased” (see column 2, lines 8-9 and column 1, lines 20-21 of Gordon).

In contrast, the present invention relates to a toy provided with a photochromic layer containing a diaryl ethene photochromic compound. According to the toy of the present invention, the diaryl ethene-containing photochromic layer maintains a coloring state by an irradiation of UV rays or sunlight containing UV rays, and changes into a decolorizing state by

an irradiation of visible light. In other words, the color of the toy changes between the coloring state and decolorizing state.

Applicants respectfully submit that the presently claimed invention, which relates to a toy in which the color changes, is distinct from the sheet in Gordon, which luminesces. The presently recited coloring and decolorizing states do not correspond to the “luminesced” and “un-luminesced” states in Gordon. Accordingly, Applicants respectfully submit that the presently claimed invention is not rendered obvious by Gordon, Kamada and Tomonaga.

In addition, the color change between the coloring state and decolorizing state in the presently claimed invention is visible in a well-lighted area, which further distinguishes it over the invention disclosed in Gordon, in which the luminescent portion would be visible, and hence be used, in a dark area.

Further distinguishing Gordon over the presently claimed invention is that in Gordon, a luminescent state, or glow state, is not maintained. Rather, “the glow or luminescent effect will...fade away” over time (column 2, lines 8-9). In the presently claimed invention, the coloring state or decolorizing state can be maintained.

Finally, in the present invention, a color-changing means for cutting off UV rays or sunlight and effecting irradiation of visible light is used in order to decolor the photochromic layer. By using the color-changing means, a process in which the coloring state of the photochromic layer is gradually decolored into the decolorizing state is visible, and the decolorizing state is also visible in a well-lighted area after being decolored.

In view of the differences between Gordon and the presently claimed invention, Applicants respectfully submit that Gordon does not render obvious the presently claimed invention.

Kamada and Tomonaga do not rectify the above-mentioned deficiencies within Gordon because, given the teachings of Gordon, there is no reason to combine the teachings of Kamada and Tomonaga with Gordon.

Kamada and Tomonaga relate to photochromatic compounds, which are different from the photoluminescent compound disclosed in Gordon. Kamada discloses a photochromic material in which an organic photochromic compound dissolved or dispersed in a hindered amine-type compound is microencapsulated. Kamada does not disclose the presently recited diaryl ethene photochromic compound, nor does Kamada disclose changing and maintaining color by combining the diaryl ethene photochromic compound and the color-changing means of the present invention. Tomonaga discloses a diaryl ethene photochromic compound. Accordingly, Applicants respectfully submit that Kamada and Tomonaga disclose photochromic compounds, whereas Gordon relates to a luminescent material, and there is no reason to combine the teachings of these references in the manner set forth in the Office Action.

Further, Applicants respectfully note that if the diaryl ethene photochromic compound in Tomonaga was solely used in the presently claimed invention, then only the coloring state would be visible. Tomonaga does not teach or suggest a toy in which both the coloring state and decolorizing state are visible in a well-lighted area, such as the presently claimed invention, which combines a layer with the diaryl ethane photochromic compound and the presently recited color-changing means capable of cutting UV rays of sunlight and effecting irradiation of visible light.

Accordingly, Applicants respectfully submit that the presently claimed invention is not rendered obvious by the combined teachings of Gordon, Kamada and Tomonaga. Applicants respectfully request the reconsideration and withdrawal of these § 103 rejections.

***Conclusion***

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

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Respectfully submitted,



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